

WHAT IS CLAIMED IS:

1. A combustor liner comprising:
  - a first annular band having forward and aft ends, said first annular band disposed about a central axis;
  - a second annular band having forward and aft ends, said second annular band disposed about said central axis and having a flange disposed in an overlapping relationship with said first annular band so as to define a circumferentially extending joint area;
  - a weld disposed in said joint area comprising a first circumferentially extending weld bead penetrating said first and second annular bands, and a second circumferentially extending weld bead penetrating said first and second annular bands and disposed adjacent to said first circumferentially extending weld bead, wherein at least a portion of said first and second weld beads overlap each other.
2. The combustor liner of claim 1 wherein said flange of said second annular band has a first length in an axial direction, and said weld has a second length in an axial direction, said second length being substantially equal to said first length.
3. The combustor liner of claim 1 further comprising additional annular bands disposed about said central axis, each of said additional annular bands being disposed in overlapping relationship with an adjacent annular band so as to create an additional circumferentially extending joint area, wherein a weld is disposed in each of said additional joint areas, each of said welds comprising first and second overlapping weld beads.
4. A combustor liner comprising:
  - a first annular band having forward and aft ends, said first annular band disposed about an axis;
  - a second annular band having forward and aft ends, said second annular band disposed about said axis and having a flange disposed in an overlapping relationship with said first annular band so as to define a circumferentially extending joint area;
  - a weld disposed in said joint area comprising a circumferentially extending weld bead penetrating said first and second annular bands,

wherein said forward section of said second annular band has a first length in an axial direction, and said weld has a second length in an axial direction, said second length being substantially equal to said first length.

5. The combustor liner of claim 4 further comprising additional annular bands disposed about said axis, each of said additional annular bands being disposed in overlapping relationship with an adjacent annular band so as to create an additional circumferentially extending joint area, wherein a weld is disposed in each of said additional joint areas, each of said welds comprising first and second overlapping weld beads

6. A method of assembling a combustor liner, comprising:  
providing a plurality of annular bands disposed about a central axis, each of said bands having a forward and an aft end;

positioning first and second ones of said annular bands in an overlapping relationship relative to each other, so as to define a circumferentially extending joint area;

directing a laser beam at said joint area at a first axial position and concurrently rotating said first and second annular bands about said central axis so as to expose the entire circumference of said joint area to said laser beam, whereby a first weld bead is formed; and

directing said laser beam at said joint area at a second axial position while rotating said first and second annular bands about said central axis so as to expose the entire circumference of said first joint area to said laser beam, whereby a second weld bead is formed, said second bead at least partially overlapping said first weld bead.

7. The method of assembling a combustor liner of claim 6 wherein each of said annular bands includes a flange having a first length in an axial direction, and first and second weld beads have an overall length in an axial direction, said overall length being substantially equal to said first length.

8. The method of assembling a combustor liner of claim 6 further comprising:

disposing additional ones of said annular bands in an overlapping relationship with an adjacent one of said annular bands so as to create an additional circumferentially extending joint area, and;

directing a laser beam at said additional joint area at a first axial position and concurrently rotating said additional ones of said annular bands about said central axis so as to expose the entire circumference of said additional joint area to said laser beam, whereby a third weld bead is formed; and

directing said laser beam at said additional joint area at a second axial position while rotating said additional annular bands about said central axis so as to expose the entire circumference of said additional joint area to said laser beam, whereby a fourth weld bead is formed, said fourth bead at least partially overlapping said third weld bead